ABSTRACT

CPU 150 performs a matrix operation on image data GD, and then increases the effective digit place number of the color values of the image data GD to increase the tone number of the image data GD from 8-bit tone to 18-bit tone. CPU 150 performs a gamma correction process, a matrix operation $N^{-1}M$, and an inverse gamma correction process, and then restores the tone number of the image data GD to the original 8-bit tone, and performs automatic quality adjustment. As a result, the 8-bit tone of the original image data GD is preserved throughout image processing, and reproductive color number of the image data GD is preserved as well.